REMARKS

This Amendment is responsive to the Office Action mailed September 24, 2002, in which claims 1-25 were rejected. With the response, claims 1, 3, 5, 7, 12, 16, and 23 are amended. Claims 1-25 remain pending in the application and are presented for reconsideration and allowance.

Objections to the Drawings

The Examiner has objected to the drawings because on page 3, line 28, the reference number 16 refers to the linking device. However, in Figure 2, reference number 16 is pointing to a printhead. The Examiner found it unclear whether reference number 16 refers to a printhead or linking device. The Examiner requested a proposed drawing correction or corrected drawings.

In response to the Examiner's objection, the specification has been amended at page 3, line 28 to change the reference number "16" to reference number --34-- to conform with the remainder of the specification. In addition, a proposed drawing correction for Figure 2 is submitted herewith, with changes shown in red ink. In particular, reference numeral 16 is deleted from Figure 2. With the above noted amendments to the specification and Figure 2, it is believed the drawings and specification are made clear, and withdrawal of the objection to Figure 2 is respectfully requested.

The drawings were also objected to as failing to comply with 37 C.F.R. 1.84(p)(5) because they include reference numbers 20 and 62 which are not mentioned in the description.

In response to the objection to the drawings, the specification has been amended to include reference numeral 20 at page 4, line 6, and to include reference numeral 62 at page 12, lines 12 and 15. With the above amendments to the specification adding reference numbers 20 and 62, it is believed that the drawings comply with 37 C.F.R. 1.84(p)(5) and withdrawal of the objection is respectfully requested.

Amendments to the Specification

The specification has been amended at several occurrences, in addition to those noted above, to correct typographical errors and other informalities. No new matter has been added to the specification.

Claims Objections

The Examiner has objected to claims 3, 5, 7, 12, 16, and 23 because of several spelling and grammatical errors in the claims.

Claims 3, 5, 7, 12, 16, and 23 have been amended as suggested by the Examiner to correct the spelling and grammatical errors. Accordingly, withdrawal of the objections to claims 3, 5, 7, 12, 16, and 23 is respectfully requested.

Claim 1 has also been amended to correct an informality. Specifically, the word "and" has been added prior to the last element of the claim.

Claim Rejections under 35 U.S.C. § 102

The Examiner objected to claims 1-25 under 35 U.S.C. § 102(a) as being anticipated by Walker (U.S. Patent No. 6,302,527).

With respect to independent claim 1, the Examiner finds Walker to disclose an ink level sensing system (Figure 9, reference 42; column 2, lines 20-29) comprising an ink reservoir having a radio frequency interface disposed therein (Figure 2, reference 24; Figure 9, reference 80; column 6, lines 47-55); and a printing device configured for receiving the ink reservoir (Figure 2, reference 38), the printing device including a radio frequency interface for receiving ink level information that is coupled through the ink reservoir by the radio frequency interface within the ink reservoir (Figure 9, references 74, 80; column 6, lines 47-65; column 7; column 8, lines 1-39).

Independent claim 1 of the present application claims an ink level sensing system for determining ink level in an ink reservoir and providing this ink level information to a printing system. The ink level sensing system comprises an ink reservoir having a radio frequency interface disposed therein, and a printing device configured for receiving the ink reservoir. The printing device includes a radio frequency interface for receiving ink level information

that is coupled through the ink reservoir by the radio frequency interface within the ink reservoir.

Walker '527 discloses inkjet printing devices that make use of a wireless link for transferring ink level information from a replaceable ink container to a printer portion. In Walker, a replaceable printing component 14 has an ink reservoir portion 24. The reservoir portion 24 includes a housing 32 for containing a supply of ink (column 4, lines 8-9). A linking device 16 includes a sensor 42 for determining status information related to the replaceable printing component 14 and a link 44 for transferring information between the replaceable printing component 14 and the printing portion 12 (column 4, lines 35-39; Figure 3). The sensor 42 is defined by depositing conductive ink on a label 46 to form electrodes. In sensing a fluid level using a capacitance sensing technique, the electrodes extend over a large area on either side of the ink reservoir 24 as shown in Figures 3, 4, 5, and 6. Electrodes sensing the fluid level using a conductive technique are also positioned on either side of the ink reservoir 24 as shown in Figure 7 (column 4, lines 43-57). As clearly shown in Figures 5-7 of Walker, the linking device 16 is attached to the external surface of the ink reservoir 24. That is, the linking device 16 of Walker is not within the reservoir 24.

Independent claim 1 clearly claims an ink level sensing system comprising **an ink reservoir having a radio frequency interface disposed therein.** In contrast, Walker '527 shows and teaches a linking device 16 which is disposed outside of an ink reservoir 24. This is clearly shown in Figures 5-7 of Walker '527, in which linking device 16 is shown on the exterior surfaces of housing 32 which contains a supply of ink. Nowhere does Walker '527 show, teach, or suggest that the linking device 16 should be disposed **within** the ink reservoir 24. Because Walker '527 does not show, teach, or suggest, either implicitly or explicitly, that **the ink reservoir has a radio frequency interface disposed therein**, withdrawal of the rejection of independent claim 1 under 35 U.S.C. § 102(a) is respectfully requested.

The Examiner has also rejected independent claim 7 as being anticipated by Walker '527. In particular, the Examiner found Walker to disclose a replaceable printing component (column 1, lines 62-64) comprising a reservoir for containing printing material (Figure 2, reference 24); a linking device disposed entirely within the reservoir (Figure 8, reference 14, 44) for admitting a signal indicative of printing material within the reservoir (Figure 9,

reference 44; column 6, lines 47-67; column 7; column 8, lines 1-39) wherein the reservoir is formed of a material so that admitted signal passes through the reservoir for providing information to the printing system (Figure 5, reference 32; column 4, lines 33-43).

Independent claim 7 claims a replaceable printing component for use in a printing system, the replaceable printing component for containing a supply of printing material for use by the printing system to form images on media, the replaceable printing component comprising; a reservoir for containing printing material; and a linking device disposed entirely within the reservoir for emitting a signal indicative of printing material within the reservoir wherein the reservoir is formed of a material so that the emitted signal passes through the reservoir for providing information to the printing system.

As discussed above with respect to independent claim 1, Walker '527 does not disclose **a linking device disposed entirely within the reservoir**. The comments made with respect to independent claim 1 are equally applicable to independent claim 7. In particular, Walker '527 does not show, teach or suggest, either implicitly or explicitly, a linking device disposed entirely within the reservoir for emitting a signal indicative of printing material within the reservoir. Accordingly, withdrawal of the rejection of independent claim 7 under 35 U.S.C. § 102(a) is respectfully requested.

The Examiner has also rejected independent claim 13 as being anticipated by Walker '527. The Examiner found Walker '527 to disclose a printing system having a printing portion and at least one replaceable receiver (Figure 2, references 14, 24, 26) comprising: a first wireless link associated with the replaceable reservoir (Figure 9, reference 44), the first wireless link disposed entirely within the replaceable reservoir (Figure 8, references 14, 44); and second wireless link associated with the printer portion (Figure 9, reference 70), the second wireless link receiving replaceable reservoir information from the first wireless link by transmission of information in a wireless manner (column 6, lines 17-21).

As discussed above with respect to independent claims 1 and 7, Walker '527 does not disclose a first wireless link associated with the replaceable reservoir, **the first wireless link disposed entirely within the replaceable reservoir**. As such, the remarks made above with respect to independent claims 1 and 7 are equally applicable to independent claim 13. Specifically, Walker '527 does not show, teach or suggest, either implicitly or explicitly, a

first wireless link associated with the replaceable reservoir, the first wireless link disposed entirely within the replaceable reservoir. Accordingly, withdrawal of the rejection of claim 13 under 35 U.S.C. § 102(a) is respectfully requested.

The Examiner has also rejected independent claim 19 as being anticipated by Walker '527. The Examiner found Walker '527 to disclose a method for transferring status information from a replaceable printing component to a printer portion (column 1, lines 20-24); determining status information (as taught in claim 2) and transferring status information (as taught in claim 3).

As discussed above with respect to independent claim 1, Walker '527 does not disclose **a sensor disposed within the replaceable printing component**. Rather, Walker discloses a linking device 16 with sensors 42 and a link 44 which are positioned external to the replaceable printing component. Accordingly, Walker '527 does not show, teach, or suggest, either implicitly or explicitly, a sensor disposed within the replaceable printing component as claimed in independent claim 19. Accordingly, withdrawal of the rejection of independent claim 19 under 37 U.S.C. § 102(a) is respectfully requested.

The Examiner has also rejected independent claim 22 as being anticipated by Walker '527. The Examiner found Walker '527 to disclose a replaceable ink container (Figure 2, reference 14; column 1, lines 20-24) including a sensing system (column 2, lines 20-22).

As discussed above with respect to independent claim 1, Walker '527 does not disclose **a sensing system within an ink container**. Rather, Walker '527 discloses a sensing system disclosed external to the ink container. Accordingly, Walker '527 does not show, teach, or suggest, either implicitly or explicitly, sensing system for sensing ink parameters within an ink container as claimed in independent claim 22. Therefore, withdrawal of the rejection of independent claim 22 under 35 U.S.C. § 102(a) is respectfully requested.

Dependent claims 2-6, 8-12, 14-18, 20-21, and 23-25 dependent from independent claims 1, 7, 13, 19, and 22, respectively, which are in allowable condition for the reasons discussed above. Accordingly, the dependent claims are also in allowable condition, and withdrawal of the rejection of those claims under 35 U.S.C. § 102(a) is respectfully requested.

Allowable Subject Matter

In light of the above, Applicant believes independent claims 1, 7, 13, 19, and 22 and the claims depending therefrom, are in condition for allowance. Allowance of these claims is respectfully requested.

CONCLUSION

Attached hereto is a marked-up version of the changes made to the specification and/or the claims by the current Amendment. The attached pages are captioned **"VERSION WITH MARKINGS TO SHOW CHANGES MADE".**

Any inquiry regarding this Preliminary Amendment should be directed to either Matthew B. McNutt at Telephone No. (512) 343-7440, Facsimile No. (512) 343-7402 or Kevin B. Sullivan at Telephone No. (858) 655-5228, Facsimile No. (858) 655-5859. In addition, all correspondence should continue to be directed to the following address:

Hewlett-Packard Company
Intellectual Property Administration
P.O. Box 272400
3404 E. Harmony Road, M/S 35
Fort Collins, Colorado 80527-2400

Respectfully submitted,

Ray A. Walker,

By his attorneys,

DICKE, BILLIG & CZAJA, P.A.
701 Building, Suite 1250
701 Fourth Avenue South
Minneapolis, MN 55415
Telephone: (612) 573-2000
Facsimile: (612) 573-2005

Date: Dec 13, 2002
MBM:cmj/kle

Matthew B. McNutt
Reg. No. 39,766

CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Commissioner for Patents, Washington, D.C., 20231 on this 13th day of December, 2002.

By
Name: Matthew B. McNutt

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Ray A. Walker Examiner: Leonard S. Liang

Serial No.: 10/044,476 **VERSION WITH MARKINGS TO SHOW CHANGES MADE** Group Art Unit: 2853

Filed: January 10, 2002 Docket No.: 10019374-1

Title: METHOD AND APPARATUS FOR TRANSFERRING INFORMATION BETWEEN A PRINTER PORTION AND A REPLACEABLE PRINTING COMPONENT

AMENDMENT AND RESPONSE

Commissioner for Patents
Washington, D.C. 20231

Dear Sir/Madam:

This Amendment is responsive to the Office Action mailed September 24, 2002. Please amend the above-identified patent application as follows:

IN THE SPECIFICATION

Please replace the paragraph beginning at page 1, line 15, with the following rewritten paragraph:

Inkjet printers frequently make use of an inkjet printhead mounted within a carriage that is moved back and forth across print media, such as paper. As the printhead is moved across the print media, a control system activates the printhead to deposit or eject ink droplets onto the print media to form images and text. Ink is provided to the printhead by a supply of ink that is either carried by the carriage or mounted to the printing system ~~that~~and does not ~~to~~ move with the carriage. For the case where the ink supply is not carried with the carriage, the ink supply can be in fluid communication with the printhead to replenish the printhead or the printhead can be intermittently connected with the ink supply by positioning the printhead proximate to the filling station whereupon the printhead is replenished with ink from the refilling station.

Please replace the paragraph beginning at page 3, line 21, with the following rewritten paragraph:

Fig. 1 is a perspective view of one exemplary embodiment of a printing system 10 of the present invention shown with its cover open. The printing system 10 includes a printer portion 12 and one or more replaceable printing components 14 installed therein. The printer

portion 12 and the replaceable printing component(s) 14 together cooperate to accomplish printing on print media. Each replaceable printing component 14 includes a linking device (not shown) for exchanging information between the printer portion 12 and the replaceable printing component 14. The use of the linking device ~~16~~34 (Figure 2), together with a corresponding linking device (not shown) associated with the printer portion 12, allows the printer portion 12 to retrieve information and monitor status of the replaceable printing components 14.

Please replace the paragraph beginning at page 4, line 1, with the following rewritten paragraph:

In one exemplary embodiment, the printing system 10 is an inkjet printing system. In this exemplary embodiment, the replaceable printing component 14 is an ink reservoir that is in fluid communication with an inkjet printhead portion that will be discussed with respect to Fig. 2. Each of the replaceable printing components 14 or ink reservoirs is installed in a scanning carriage 18 that is moved relative to print media. The inkjet printer portion 12 includes a media tray 20 for receiving print media 22. As media step through a print zone, the scanning carriage 18 moves the replaceable printing components 14 and printheads relative to the print media 22. The printer portion 12 selectively activates the printhead portion associated with the replaceable printing components 14 to deposit ink on print media 22 to thereby accomplish printing.

Please replace the paragraph beginning at page 5, line 9, with the following rewritten paragraph:

Fig. 2 is a simplified schematic representation of the inkjet printing system 10 of the preferred embodiment shown in Fig. 1. In this simplified representation, the replaceable printing component 14 is shown as having two separately replaceable parts, a reservoir portion 24 and a printhead portion 26. The printing system 10 includes a controller 28 for providing activation signals to the printhead 26. The printhead 26 ejects a marking fluid such as ink in response to activation by the controller ~~26~~28. The reservoir 24 is an ink reservoir

that is used to replenish the printhead 26 with ink by way of a fluid conduit 30. The fluid conduit 30 fluidically couples the ink reservoir 24 with the printhead portion 26.

Please replace the paragraph beginning at page 6, line 11, with the following rewritten paragraph:

The linking device 34 is configured to pass information through sidewalls of the reservoir 32 to exchange information between the ink reservoir 24 and controller ~~34~~28 on the printer portion 12. The exchange of information between the ink reservoir 24 and the printer portion 12 is to ensure the operation of the printer portion 12 is compatible with the ink contained within the replaceable printing component 14 thereby achieving high print quality and reliable operation of the printing system 10.

Please replace the paragraph beginning at page 6, line 17, with the following rewritten paragraph:

The controller 28, among other things, controls the transfer of information between the printer portion 12 and the replaceable printing component 14. In addition, the controller 28 controls the transfer of information between the printhead ~~16~~26 and the controller 28 for activating the printhead 26 to selectively deposit ink on print media. The controller 28 also controls the relative movement of the printhead ~~16~~26 and print media. The controller 28 performs additional functions such as controlling the transfer of information between the printing system 10 and a host device such as a host computer (not shown).

Please replace the paragraph beginning at page 6, line 25, with the following rewritten paragraph:

In order to ensure reliable operation of the printing system 10 it is necessary to identify when the replaceable consumable 14 is out of ink so that operation of the printhead ~~16~~26 can be halted. Operation of the printhead ~~16~~26 without ink can result in catastrophic damage to the printhead ~~16~~26. Information provided by the linking device 34 to the controller 28 allows the controller 28 to identify an out of ink condition so that operation of the printhead ~~16~~26 can be ceased.

Please replace the paragraph beginning at page 7, line 1, with the following rewritten paragraph:

In addition to out of ink information, the linking device 34 provides various ink characteristics to the controller 28 for determining accuracy of the out of ink information. For example, the linking device 34 associated with the replaceable consumable 14 can provide characteristics such as ink resistivity and ink capacitance just to name a couple. The controller 28 can use this information to identify the ink composition. In the event the ink composition is recognized then the sensor information for determining the out of ink condition will be accurate. Conversely, in the event that the ink composition is not recognized then the sensor information for determining the out of ink condition will not be accurate and other measures are required for preventing damage to the printheads ~~16~~26.

Please replace the paragraph beginning at page 7, line 17, with the following rewritten paragraph:

In one exemplary embodiment, the antenna portion 40 is configured so that when activated, signals are emanated of a wavelength selected to pass through sidewalls 32 of the ink reservoir 24. The antenna ~~potion~~portion 40 is achieved by forming several turns of a conductor to create a radio frequency antenna portion 40. This radio frequency antenna 40 utilizes a frequency that is capable of penetrating through the sidewall 32 of the ink reservoir 24 to the controller 28.

Please replace the paragraph beginning at page 8, line 5, with the following rewritten paragraph:

Because sensed parameters such as conductivity and capacitance can change as a result of different ink compositions it is necessary to verify that the ink composition has not changed to ensure accuracy of the out of ink signal. By ~~M~~measuring parameters such as ink capacitance in conjunction with ink conductivity, the particular ink composition within the ink reservoir 24 can be characterized to determine if the ink composition is the same as ~~the~~

what the out of ink sensing system was designed for and therefore whether the out of ink signal is accurate.

Please replace the paragraph beginning at page 8, line 12, with the following rewritten paragraph:

In contrast, if the ink composition is different from the ink composition the out of ink sensing system was designed for, then an out of ink signal may not be generated or, if the out of ink signal is generated, this signal may be erroneous. Once it is determined the out of ink sensing system no longer has integrity, then the printing system 10 can initiate action to protect the printhead 26 from damage. For example, the printer can notify the customer that the out of ink sensing system has lost integrity and require the customer to verify there is sufficient ink in the ink reservoir 24 before resuming the printing process.

Please replace the paragraph beginning at page 8, line 20, with the following rewritten paragraph:

Fig. 4 is a cross-section of the linking device 34 taken across lines 4-4 in ~~fig~~Fig. 3. The linking device 34 is shown encapsulated by an encapsulant 44 to prevent ink from getting access to ~~and~~ the electrical circuit portion 38 and the antenna 40. Ink used in an inkjet printing tends to include surfactants that if exposed to the electrical circuit portion 38 can cause damage. In addition, ink is conductive and therefore tends to provide unwanted ~~the~~ electrical shorts in the electrical circuit portion 38. The encapsulant 44 is configured to prevent ink access to the electrical circuit portion 38.

Please replace the paragraph beginning at page 8, line 27, with the following rewritten paragraph:

The use of the encapsulant 44 allows the linking device 34 to be disposed in the ink reservoir 24 whereby ink parameters can be measured directly by the sensors 42. Because the linking device ~~30~~34 is coupled through the sidewalls 32 of the ink reservoir 24, ~~then~~ electrical conductors passing through sidewalls 32 are not required. By eliminating routing of electrical conductors through the sidewalls 32 of the ink reservoir 24 the reliability of the ink

reservoir 24 tends to be increased and the cost of the ink reservoir 24 tends to be reduced. In the exemplary embodiment, the ink ~~capsule and~~encapsulant 44 is a plastic carrier.

Please replace the paragraph beginning at page 11, line 6, with the following rewritten paragraph:

The measurement device 70 receives ~~an~~ electrical signals from the sensor 42 indicative of ink parameter information as well as indicative of an out of ink condition within the ink reservoir 32. In addition, the measurement device 70 receives control information from the sense controller 74 indicating what type of measurement is requested. The measurement device provides a measurement value indicative of the measured parameter to the comparator 72.

Please replace the paragraph beginning at page 11, line 12, with the following rewritten paragraph:

The measurement device 70 is capable of making a variety of different types of measurements. One type of measurement the measurement device 70 is configured to make is to measure resistance or conductivity between the sensors 42. Another type of measurement the measurement device is capable of is measurement of capacitance between the sensors 42. The printer portion 12 makes use of this measured information in a variety of ways, such as, for determining ink level information and for determining ink type, to name a couple of uses. A variety of other measurements can also be made by the measurement device that are suitable for characterizing ink within the ink reservoir ~~32~~34.

Please replace the paragraph beginning at page 11, line 21, with the following rewritten paragraph:

The comparator 72 compares the measured value provided by the measurement device 70 to a reference value provided by the sense controller 74. The reference value is ~~provide~~provided by the serial controller 56 or is generated by the sense controller 74. The reference value, in general, will be different for each parameter measured. For example, the reference value will be a first value for measuring conductance for determining an absence of

ink between the sensors 42. The reference value will be a second value for measuring capacitance between the sensors for determining ink type in the ink reservoir ~~32~~24.

Please replace the paragraph beginning at page 11, line 29, with the following rewritten paragraph:

Characterizing the ink within the ink reservoir ~~32~~24 allows the printer portion 12 to determine if ink within the reservoir ~~32~~24 has the same parameters as ink the sensor 42 and sensor electronics 66 were designed to sense. In the event that the ink within the ink reservoir ~~32~~24 has been replaced with a different ink with different ink parameters, then the integrity of the out of ink sensing system and the customer must be notified to avoid damaging the printheads.

Please replace the paragraph beginning at page 12, line 5, with the following rewritten paragraph:

In the exemplary embodiment, each of the linking device 34, sensor electronics 66 and the electrical storage device 64 is either an active device powered by a battery or a passive device that stores energy in a storage device such as a capacitor. In the case of a passive device, energy is provided to the capacitor by voltages induced on the antenna 60. In the exemplary embodiment, voltages are induced on the antenna 60 due to time varying voltages that are applied to the antenna 52 by the radio frequency interface 50. The induced voltage at the antenna 60 is provided to a power conditioner ~~(not shown)~~62 which converts these time varying voltages into a single polarity voltage that is suitable as a supply voltage for each of the electrical storage device 64, the serial controller 56, the radio frequency interface 58 and sensor electronics 66. In one exemplary embodiment, the power conditioner 62 rectifies a time varying voltage that is induced on the antenna 60 and filters this rectified voltage to provide a suitable supply voltage.

Please replace the paragraph beginning at page 12, line 28, with the following rewritten paragraph:

The use of the linking device 34 that is immersed in ink within the replaceable ink reservoir 32 provides a relatively low cost method for determining status such as an out of ink condition. Disposing the linking device 34 in the ink reservoir ~~34~~24 allows for ink level and ink parameters to be measured using a relatively low cost manufacturing techniques.

IN THE CLAIMS

Please amend claims 1, 3, 5, 7, 12, 16, and 23 as follows:

1. (Amended) An ink level sensing system for determining ink level in an ink reservoir and providing this ink level information to a printing system, the ink level sensing system comprising:

an ink reservoir having a radio frequency interface disposed therein~~,~~; and

a printing device configured for receiving the ink reservoir, the printing device including a radio frequency interface for receiving ink level information that is coupled through the ink reservoir by the radio frequency interface within the ink reservoir.

2. The ink level sensing system of claim 1 further including a sensor electrically connected to the radio frequency interface disposed within the ink reservoir, the sensor providing a sensor output signal indicative of ink level within the ink reservoir to the radio frequency interface.

3. (Amended) The ink level sensing system of claim 1 wherein the ink reservoir includes a sidewall and wherein the radio frequency interface includes an antenna for coupling a radio frequency signal ~~throught~~through the sidewall to the printing system.

4. The ink level sensing system of claim 1 wherein the radio frequency interface within the ink reservoir is enclosed in an encapsulant material and wherein the encapsulant material is at least partially surrounded by ink within the ink reservoir.

5. (Amended) The ink level sensing system of claim 2 wherein the sensor is a pair of electrodes disposed within the ink reservoir to measure electrical continuity through ink within the ink reservoir.

6. The ink level sensing system of claim 2 wherein the sensor is a pair of electrodes disposed within the ink reservoir to measure electrical capacitance between the pair of electrodes.

7. (Amended) A replaceable printing component for use in a printing system, the replaceable printing component for containing a supply of print material for use by the printing system to form images on media, the replaceable printing component comprising:

a reservoir for containing printing material; and

a linking device disposed entirely within the reservoir for emitting a signal indicative of printing material within the reservoir wherein the reservoir is formed of a material so that the emitted signal passes through the reservoir for providing information to the printing system.

8. The replaceable printing component of claim 7 wherein the linking device is a radio frequency linking device for providing a radio frequency signal.

9. The replaceable printing component of claim 7 wherein the replaceable printing component is a replaceable ink reservoir and wherein the linking device includes a sensor that provides an output signal indicative of ink within the ink reservoir and wherein the output signal is coupled to the printing system by the linking device.

10. The replaceable printing component of claim 7 wherein the replaceable printing component is a replaceable ink reservoir and wherein the linking device includes a sensor having a pair of electrodes disposed within the ink reservoir to measure electrical continuity through ink within the ink reservoir.

11. The ink level sensing system of claim 7 wherein the replaceable printing component is a replaceable ink reservoir and wherein the linking device includes a sensor having a pair of electrodes that are disposed within the ink reservoir to measure capacitance between the pair of electrodes.

12. (Amended) The ink level sensing system of claim 7 wherein the reservoir does not contain electrical conductors that ~~extends~~extend from within the reservoir to a location outside the reservoir.

13. A printing system having a printer portion and at least one replaceable reservoir, the printer portion and the at least one replaceable reservoir exchanging information therebetween, the printing system comprising:

a first wireless link associated with the replaceable reservoir, the first wireless link disposed entirely within the replaceable reservoir; and

a second wireless link associated with the printer portion, the second wireless link receiving replaceable reservoir information from the first wireless link by transmission of information in a wireless manner.

14. The printing system of claim 13 wherein the first wireless link is a radio frequency transmitter for transmitting a radio frequency signal and the second wireless link is a radio frequency receiver for receiving the radio frequency signal and determining the replaceable reservoir information based thereon.

15. The printing system of claim 13 wherein the replaceable reservoir is a replaceable ink reservoir and wherein the replaceable reservoir information is ink level information for the replaceable ink reservoir.

16. (Amended) The printing system of claim 13 wherein the first wireless link includes a pair of electrodes ~~are~~ disposed in the replaceable reservoir to measure electrical continuity of ink within the replaceable reservoir.

17. The printing system of claim 13 wherein the first wireless link includes a pair of electrodes disposed in the replaceable reservoir to measure capacitance between the pair of electrodes.

18. The printing system of claim 13 where the printer portion is an ink jet printer and wherein the replaceable reservoir contains ink.

19. A method for transferring status information from a replaceable printing component to a printer portion, the method comprising:

determining status information of the replaceable printing component using a sensor disposed within the replaceable printing component; and

transferring status information using a wireless link through a sidewall of the replaceable printing component to the printer portion.

20. The method of claim 19 wherein the replaceable printing component is an ink reservoir and the printer portion is an ink jet printer and wherein the status information is ink level information in the ink reservoir.

21. The method of claim 19 wherein the transferring status information is accomplished by providing a radio frequency signal that couples through a sidewall of the replaceable printing component.

22. A replaceable ink container for providing ink to an inkjet printing system, the replaceable ink container including:

a sensing system for sensing parameters of ink within an ink container wherein ink type within the replaceable ink container is determined by the inkjet printing system based on the sensed parameters.

23. (Amended) The replaceable ink container of claim 22 wherein the sensing system includes a pair of electrodes ~~are~~ disposed in the replaceable ink container for measuring electrical continuity of ink within the replaceable ink container.

24. The replaceable ink container of claim 22 wherein the sensing system includes a pair of electrodes for measuring capacitance between the pair of electrodes.

25. The replaceable ink container of claim 22 wherein the sensing system senses more than one parameter of ink within the ink container.